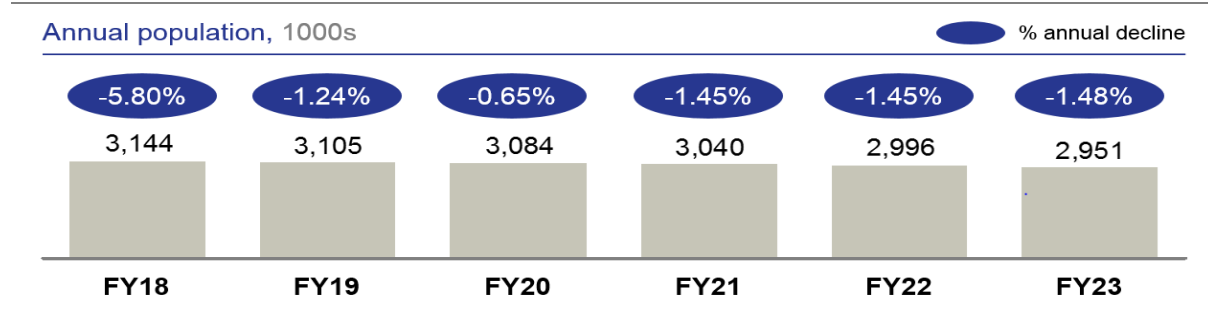


# Restoring Growth and Prosperity

June 29, 2018

EXHIBIT 11: PROJECTED POPULATION CHANGE



## Chapter 5. FISCAL PLAN FINANCIAL PROJECTIONS

Before measures and structural reforms (“baseline forecast”), there is a pre-contractual debt service surplus in FY2018-23, in part due to revenues buoyed by a positive macroeconomic trajectory resulting from the massive disaster relief funding stimulus, as well as significant Federal Medicaid funding. Over the long term, in the baseline forecast this surplus is not sustainable, as Federal disaster relief funding slows down, Supplemental Medicaid funding phases out, Act 154 and Non-Resident Withholding revenues decline, and pensions and healthcare expenditures rise. Without major Government action, the Island would suffer an annual primary deficit of over \$1.9 billion starting in FY2021.

Fiscal measures and structural reforms contained in the New Fiscal Plan also help transform the deficit into a surplus for the life of the Fiscal Plan, as structural reforms will drive a 1.51% increase in growth (by FY58), and fiscal measures will drive ~\$10.5 billion in savings and extra revenue by FY2023. However, even after fiscal measures and structural reforms and before contractual debt service, there is an annual deficit reflected in the projection starting in FY2036, due insufficient structural reforms, including restrictive labor policies that prevent high growth. After contractual debt service, this deficit drops to much more severe annual deficit for all years of the plan (**Exhibit 12**).

## EXHIBIT 12: PROJECTED DEFICIT / SURPLUS PRE- AND POST-MEASURES AND STRUCTURAL REFORMS

Projected deficit / surplus pre- and post- measures and structural reforms, \$M						
Revenue pre-measures/SRs	20,444	21,010	20,361	19,038	19,030	19,332
Expense pre-measures/SRs	-20,432	-20,516	-20,502	-21,064	-21,171	-21,464
Surplus/Deficit Pre-measures/SRs	12	494	-141	-2,026	-2,141	-2,133
Measures <sup>1</sup>	149	549	1,692	2,440	2,750	2,944
Surplus Post-measures/SRs	207	1,266	1,902	843	1,120	1,344
Deficit post-Contractual Debt service <sup>2</sup>	-2,276	-1,271	-695	-1,730	-1,511	-1,336
	FY18	FY19	FY20	FY21	FY22	FY23

1 Impact of measures has a contractionary effect on economy, thus pre-measures revenues less pre-measures expenses plus measures does not equal post-measures and structural reforms surplus  
2 Debt service based on prepetition contractual debt obligations. Presented for illustrative purposes only and does not represent anticipated future payments on restructured debt. Excludes HTA, UPRA, PREPA, PRASA, Children's Trust

### 5.1 Baseline revenue forecast

Major tax revenue streams (**Exhibit 13**) include non-export sector General Fund revenues (including individual, corporate, and sales and use taxes) and export sector revenues (including Act 154 excise taxes paid by multinationals operating on the Island, and Non-Resident Withholdings), as well as Federal funding.

## EXHIBIT 13: MAJOR REVENUE CATEGORIES

Key Baseline Revenue Drivers, Pre-measures and structural reforms, \$M						
PIT	1,788	1,926	1,975	2,030	2,090	2,149
CIT	1,340	1,443	1,480	1,521	1,566	1,610
SUT	2,281	2,458	2,520	2,590	2,667	2,742
Act 154	1,761	1,683	1,551	1,303	1,026	1,026
NRW	569	539	539	512	478	483
Other	2,290	2,337	2,364	2,389	2,382	2,375
Federal Funds	6,381	6,921	5,869	4,881	4,951	5,020
Total	16,409	17,307	16,298	15,227	15,161	15,406
	FY18	FY19	FY20	FY21	FY22	FY23

### 5.1.1 Non-export sector General Fund revenue projections

In the aftermath of the hurricanes, actual tax receipts have been closely monitored to measure the near-term fiscal impact. Using these actuals and other inputs, the New Fiscal Plan projects a drop of ~14% in General Fund revenues in FY2018, adjusted for one-off events.<sup>12</sup>

**Individual income taxes:** Individual income taxes are concentrated, with 78.2% of revenues coming from the 8.7% of returns reporting income above \$60,000 per year. Revenues from individual income tax were down ~3% as of February, relative to FY2017 actuals.<sup>13</sup> This likely reflects most of the impact of the hurricane on wage earnings, but it is possible that estimated tax payments (e.g., by self-employed or high net worth individuals) are running ahead of where they will be at year end, at which point there could be large refund claims. To account for this risk, Hacienda has estimated that a marginal additional increase in deductions in FY2018 will drive a \$112 million negative variance.<sup>14</sup> With this \$112 million in extra deductions, income tax revenues for FY2018 are projected to be ~8% lower than in FY2017 when adjusted for extraordinary items.

**Corporate income taxes:** There is also concentration in tax receipts among the largest corporations operating in Puerto Rico (e.g., ~29% of corporate income tax is paid by 20 corporate taxpayers).<sup>15</sup> As of February, corporate tax revenues were down ~11% FYTD relative to FY2017, and are projected to continue this trend. Finally, Hacienda has projected personal

<sup>12</sup> The New Fiscal Plan estimates for income taxes and SUT for FY2018 are based on actuals through February 2018, with the five-month post-storm average trend line continuing through the end of the fiscal year. Additional adjustments are included for income taxes and corporate taxes due to the expected deductions for unreimbursed property damage

<sup>13</sup> All actuals are adjusted to normalize for extraordinary non-recurring item

<sup>14</sup> This calculation is based on casualty and personal property loss estimates from Hurricane Georges, and the impact is intensified (by about 4x) to account for the increased severity of Maria. Hacienda's analysis here would result in ~20% increase in tax refunds/ deductions, which is in-line with the impact seen on U.S. Federal tax refunds in 2001 and 2008, in the aftermath of two large economic recessions

<sup>15</sup> Hacienda historical reports

property, casualty, and business interruption losses will result in a \$102 million marginal fall in corporate tax revenues. The current trendline, in addition to these deductions, results in an adjusted year over year decline of 18.6% from FY2017.

**Sales and use taxes (SUT):**<sup>16</sup> As of February, SUT revenues were down ~9% FYTD relative to FY2017, but had fallen 14.3% since the hurricane – a trend that is projected to apply to the rest of the fiscal year. Unlike income taxes, where monthly cash flows can only help approximate annual tax liabilities, sales and use taxes are collected throughout the year and remitted on a regular basis (varies depending on size of taxpayer). Emergency measures taken by the Government immediately after the hurricanes account for ~\$100 million in losses, while outmigration, business closures, and general disruption (e.g., due to power outages) will likely account for the rest of the drop. The application of this base trend through June 2018 results in a year-over-year decline of ~10.4% from FY2017 (inclusive of non-General Fund SUT funds such as CINE, FAM, and COFINA).

**Other General Fund Revenue (Motor Vehicles, Alcoholic Beverages, Cigarettes):** The 2018 trendline for other General Fund revenues is projected to continue in line with post-Maria actuals to date, resulting in a 2.2% increase for alcoholic beverages, a 25.4% increase for cigarettes, a 14.3% decline for motor vehicles, and a 28% decline for “other general fund revenues” which includes fees/penalties and dividend taxes (all figures are relative to 2017 actuals and adjusted for extraordinary events and Commonwealth policies on tax exemptions and holidays in response to the storm).<sup>17</sup>

### 5.1.2 Export sector revenue projections

Act 154 and Non-Resident Withholding (NRW) tax revenues have proven to be far less resilient than other types of revenues after the hurricane.<sup>18</sup> For FY2018, Act 154 is expected to decline ~15%, and NRW revenues are projected to decline ~15%. Both revenue types are concentrated in a small number of multinational corporations, and the absence of payments from large payers in previous years has had an impact on the overall trendline of these revenues. From FY2017 to FY2023, Hacienda estimates that ~51% of Act 154 and 28% of NRW revenues will erode (**Exhibit 14**) due to the combination of Federal tax reform (reducing Puerto Rico’s attractiveness as a low tax jurisdiction for multinationals) and hurricane impacts (creating challenges restoring manufacturing operations and exporting). In some cases, these disruptions revealed concentration risk in Puerto Rico that manufacturers may consider in making future business continuity plans.

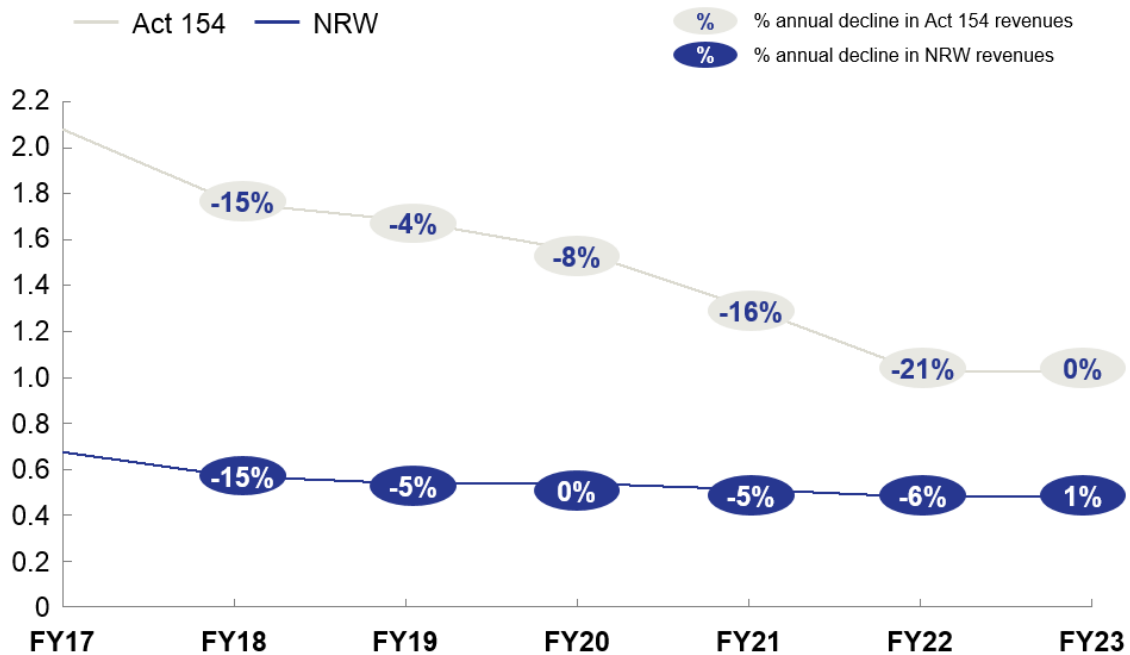
<sup>16</sup> All analyses for the purposes of the New Fiscal Plan are all-inclusive of sales and use tax revenues. Monthly and quarterly general fund SUT trends are variable due to differences in year over year timing of when COFINA and other caps are hit

<sup>17</sup> While these numbers are not adjusted for deductions, they are adjusted for what Hacienda views to be “one-off events.” For example, Hacienda removed \$13M from cigarette taxes in Nov. 17 due to non-recurring promotions offered by gas stations and convenience stores, and removed \$18.3M from motor vehicle taxes due to a spike in car sales promotions

<sup>18</sup> As of February 2018

# EXHIBIT 14: PROJECTED ACT 154 AND NON-RESIDENT WITHHOLDING (NRW) REVENUES

Projected annual Act 154 and NRW revenues, \$M



## 5.1.3 Medicaid Federal funding

In the steady state, Medicaid costs are typically funded primarily by the Commonwealth, as there is a cap on available Federal funding. Yearly Federal funding streams for the Commonwealth are the following, projected based on current law and statutory growth rates:

- **Standard annual Federal Medicaid funding.** Although Puerto Rico has a 55% Federal matching assistance percentage (FMAP), this amount is capped each year at an amount that is below 10% of costs. As of FY2018, this funding stream was capped at \$359.2 million, and though the cap grows each year, it does not keep pace with healthcare expenditure growth.<sup>19</sup>
- **Children’s Health Insurance Program (CHIP) funding.** CHIP funding is not subject to a Federal cap. It also has a higher FMAP at 91.5%, though this Federal cost share is projected to decrease in FY2020 with the expiration of the Affordable Care Act’s temporary increase. In FY2018, this amount totaled \$172 million.
- Each year, funds are **passed directly through to the Department of Health**, totaling \$200 million out of the annual Federal funds available for Medicaid. This funds Federally Qualified Health Centers (Centros 330, “FQHC”) and Medicaid Operations.

In FY2018, however, the available share of Federal funds is much higher due to several Federal fund sources. Additional Federal funding is provided in FY2018 by **remaining Affordable Care Act (ACA) block grant** funds (approximately \$598 million as of the beginning of the fiscal year) and supplemental FY2017 Omnibus Federal funding of \$296 million.

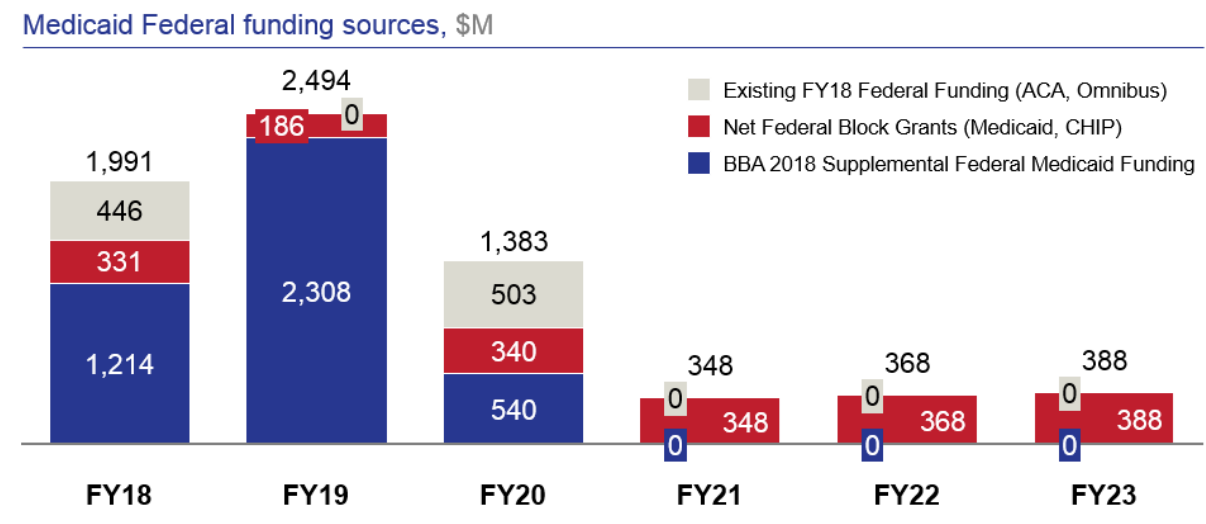
<sup>19</sup> According to the Social Security Act, the cap grows by the medical component of CPI-U as reported by BLS each year. From FY2011-FY2016, this growth averaged 2.9%. This inflation rate differs from the healthcare inflation index for Medicaid and Medicare used elsewhere in this New Fiscal Plan (7.1% from FY2018-FY2023, and 5.6-4.7% in the long-term). Instead, the medical component of CPI-U includes other factors that lower the inflation rate by approximately 3-5 percentage-points, meaning the increase in the Federal funding cap will not keep up with actual increases in expenditures

In addition, in February 2018 the Bipartisan Budget Act of 2018 (BBA) allocated a supplemental \$4.8 billion of Federal funding to Puerto Rico Medicaid, for use between January 2018 and September 2019. Per CMS guidance, this funding is estimated to apply only as a reimbursement for eligible populations (i.e., Federally funded Medicaid expenses). The Puerto Rico Health Insurance Administration (ASES) will spend as much of the allocation as possible before drawing down any remaining ACA funds, which can resume use from September 30, 2019 until expiration in December 31, 2019.

Depending on the exact parameters of eligible spending (e.g., if Commonwealth-funded populations and/or some dual-eligible CHIP members are eligible), ASES will be able to absorb between \$4.1 billion and \$4.8 billion of the allocated funding for core Medicaid expenditures.<sup>20</sup> It will continue to receive its annual CHIP,<sup>21</sup> FQHC, and DOH Medicaid operations funding.

**Exhibit 15** outlines expected Medicaid Federal fund receipts. Starting in FY2020, Supplemental funding is projected to phase out. This funding cliff indicates the imperative and urgent need to implement cost-saving measures to reduce long-term Medicaid costs (Medicaid expenditures are discussed in detail in *Section 5.2.2*).

EXHIBIT 15: MEDICAID EXPECTED FEDERAL FUND RECEIPTS



#### 5.1.4 Other Federal Funding

In addition to Medicaid funding, Puerto Rico receives other federal funds, which cover both social benefits and operational expenditures. In the New Fiscal Plan, these funds have been modeled based on what types of costs they cover (e.g., benefits or operations) as well as the statutory formula that defines the size of Puerto Rico's allotment. For example, while TANF funds are typically pass-through (e.g., none of these funds go to operational costs), some Title I education funds are used for operational purposes (e.g., teachers' salaries, school supplies for programs for students with special needs, etc.). For the former, federal fund inflows and outflows mirror each other (as benefit needs decline, so do funds). For the latter, though

<sup>20</sup> Current assumption is that only Federally funded Medicaid beneficiaries (excluding all CHIP and Commonwealth members) are eligible for reimbursement using BBA funds. These beneficiaries represent approximately 80% of total MCO disbursements, 100% of Platino premiums, all administrative costs, and less any cost-saving measures (*described in Chapter 14*) that reduce reimbursable spend during the timeframe

<sup>21</sup> CHIP funding will continue at 91.5% FMAP until expiration of the ACA enhanced FMAP in September 2019. At that point, FMAP will return to 68.5% pre-ACA level, according to §2101(a) of the Affordable Care Act which amended §2105(b) of the Social Security Act

inflows may decline, it does not necessarily mean expenditures decline as well – as expenditures are based on operations, not on benefits formulas. Meanwhile, while Head Start funds are allocated from the federal government based on the number of children living in poverty, PAN funds are provided through a block grant that is capped. The former, therefore, should change by population, while the latter should be consistent regardless of population size.

## 5.2 Baseline expenditure forecast

Over the next five years, baseline expenditures are set to increase over FY2018 due to inflation and increases in Medicaid and pensions costs (**Exhibit 16**).

EXHIBIT 16: MAJOR EXPENDITURE CATEGORIES

Key Baseline Expense Drivers (pre-measures and structural reforms), \$M



1 Includes appropriations to HTA, UPR, and municipal expenses

2 Includes appropriations to utilities, pension expenses, disaster recovery cost match, Title III, loan to PREPA, federal Medicaid and social program contributions, maintenance capex, enterprise funds, disbursements to entities outside the fiscal plan, and other non-recurring and recurring costs

### 5.2.1 Payroll expenses and non-payroll operating expenditures

**Payroll expenses:** The expenditure model holds payroll constant at the FY2018 approved budget levels based on the Fiscal Plan Compliance Act. Payroll projections do not assume reductions from either attrition or absenteeism, as reductions would need to be met with limits on rehiring to truly capture any cost savings – therefore, any workforce reductions will be captured only through fiscal measures. Further, whereas the March 2017 Fiscal Plan included a payroll freeze through FY2019 (which is reflected in the baseline), the extension of this payroll freeze is proposed by the New Fiscal Plan and will therefore be counted as a measure. After FY2019, all figures are projected to grow by Puerto Rican inflation.

**Non-Personnel Operating Expenses:** Like payroll expenses, non-personnel operating expenses are projected to be frozen FY2018-FY2019 by the March 2017 Fiscal Plan measures, with costs growing by inflation thereafter. Utility costs are based on the historical cost of government payments for utilities-related costs.

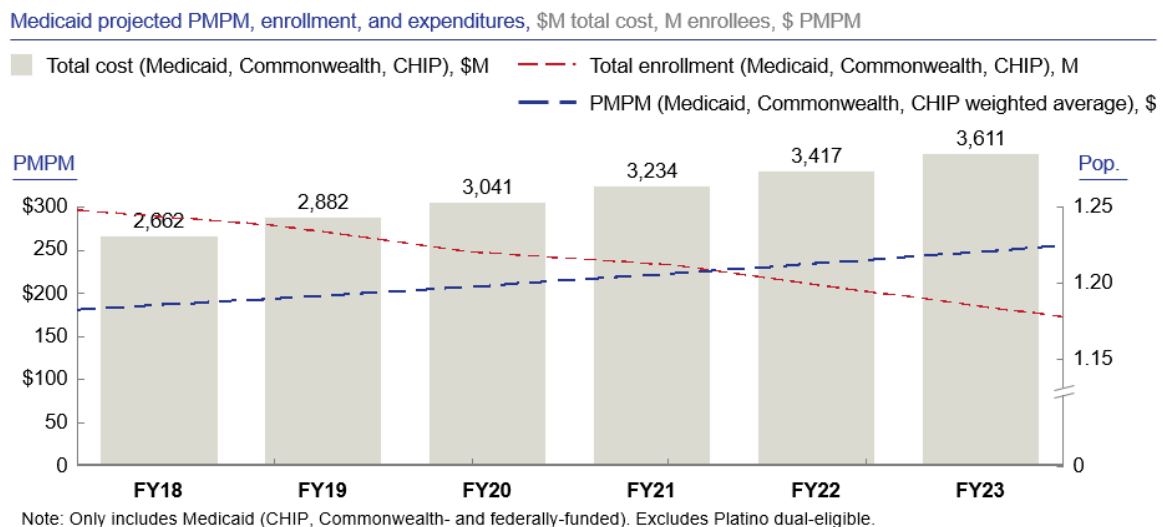
### 5.2.2 Medicaid costs

Medicaid costs are projected to reach over \$3.6 billion annually by FY2023 (**Exhibit 17**). These costs are primarily driven by the cost per member per month (PMPM) and the number of people enrolled in Medicaid (Federal and Commonwealth), CHIP, and Platino dual eligible programs. Other categories also contribute, including health-related expenses (e.g., HIV and Pulmonary programs) and program administration, bringing total expenditures to \$3.7 billion by FY2023.

In the short term, Hurricane Maria is expected to affect both PMPM and enrollment, as evidenced by historical post-disaster environments. From August (pre-Maria) to March 2018, actual enrollment data has indicated nearly a 5% increase in enrollment, as residents face higher rates of utilization and struggle to fulfill basic needs. Other post-disaster areas have exhibited a similar spike in proportion of population enrolled in Medicaid but have shown that enrollment soon declines back to trend.<sup>22</sup> Similarly, the proportion of Puerto Ricans enrolled in Medicaid is expected to slightly drop after a time. As the overall population of Puerto Rico decreases, the Mi Salud population will decline concurrently, but will likely lag overall outmigration trends by a year due to the time needed for individuals to switch to a new plan once they have left the Island.

**PMPM costs** are projected to grow at 7.1% annually. This rate combines normal healthcare cost inflation rate of 6.0% experienced in Puerto Rico before the storm,<sup>23</sup> along with an additional 1.1% observed in other post-disaster environments.<sup>24</sup>

EXHIBIT 17: PROJECTIONS FOR MI SALUD BASELINE PMPM AND ENROLLMENT (NOT INCLUDING PLATINO)



- <sup>22</sup> Analysis included effect of Hurricane Katrina on Medicaid population in New Orleans. Directly following the storm, the proportion of overall population on Medicaid spiked, but declined beginning a year after the hurricane. Source Louisiana Department of Health and Hospitals, Bureau of Health Services Financing. "Louisiana Medicaid Annual Report," 2005-2009, <http://dhh.louisiana.gov/index.cfm/newsroom/detail/1699/>
- <sup>23</sup> From 2011-2016, the CAGR for PMPM inflation in Puerto Rico averaged about 6.6% (ASES analysis of historical PMPM rates). Milliman actuarial analysis projects a 5-7% PMPM inflation rate from FY2018-FY2020 and 4-6% PMPM inflation rate from 4-6%
- <sup>24</sup> NBER working paper 22272 analyzing fiscal effects of hurricanes on healthcare costs. Table 7, Panel B coefficient for implied effect after 7.5 years spread year over year; Took the value of the implied effect after 7.5 years (0.085); Divided this by the number of years (7.5); Provided the change year over year =  $0.085/7.5 = 0.0113$ ; Then, interpreted the coefficient; Given the y variable is logged, the interpretation is: (change year over year) \* (100%) = % change year over year, generating a 1.13% change projected year over year. Deryugina, Tatyana. "The Fiscal Cost of Hurricanes: Disaster Aid Versus Social Insurance." National Bureau of Economic Research, May 2016

**Other costs**, which include HIV/PDP, Health Insurance Provider Fee, Air Ambulance, MC21 Administrative Fee, Super Utilizers, and Pulmonary, among others, are projected to grow at the rate of Puerto Rico inflation.

Expenditures for the Platino dual eligible program were estimated using a consistent \$10 PMPM over FY2018-FY2023, representing payment for wrap-around services supplementing main Medicare coverage. Enrollment is projected to be affected similarly to Medicaid enrollment, though with less fluctuation in actual proportion of population enrolled.<sup>25</sup> Platino costs are expected to total \$29 million in FY2018 and decline slightly to \$28 million by FY2023.

### 5.2.3 Other costs

**Appropriations:** Baseline municipal appropriations are projected to remain constant at ~\$220 million from FY2018-FY2023, with the exception of a *one-time* allotment to municipalities as a result of Hurricanes Irma and Maria, which is to be provided in FY2018 for the amount of \$78 million, and which will be allocated on the same basis as the existing municipality subsidies. The University of Puerto Rico appropriation baseline is \$708 million in FY2018 and remains ~\$717 million from FY2019-FY2023.

**Pension costs:** Projections rely on demographic estimations for Employees' Retirement System (ERS), Teachers' Retirement System (TRS), and Judicial Retirement System (JRS) populations and benefit obligations, and include updated data and actuarial projections for regular TRS and JRS benefits (extrapolated to update estimates for ERS). From FY2018-FY2023, costs are projected to grow slowly but remain approximately \$2.3 billion for the New Fiscal Plan period.<sup>26</sup> Starting in FY2018 ERS pension benefits have been paid on a pay-as-you-go basis, given that the majority of the liquid assets in the retirement system have been depleted.

**Capital expenditures:** Centrally funded maintenance and capital expenditures of the Commonwealth (excluding PREPA, PRASA, HTA self-funded capex/one-time transfers) is expected to be \$400 million annually. Of this, \$124 million will be appropriated to HTA and UPR, with the remaining \$276 million for use by the Commonwealth. The capital expenditure costs are lower in the short-term because of the large disaster relief funding allocations from the Federal Government and from Puerto Rican cost match. HTA's capital expenditure funds will be used to support reconstruction, maintenance, traffic reduction, completion of the strategic network, and P3-related expenditures. UPR's capital expenditure funds will support, among other projects, Phase III of the large Molecular Sciences building, building restoration at Rio Piedras, and the development of a major campus building at Mayagüez.

**Independently Forecasted Component Units (IFCUs):** IFCUs in the New Fiscal Plan include Puerto Rico Industrial Development Company, Public Buildings Authority, Ports Authority, State Insurance Fund Corporation, Medical Services Administration, Tourism Company, Health Insurance Administration, Cardiovascular Center, Housing Finance Authority, Department of Agriculture, Integrated Transport Authority, AAFAF, and Convention Center Authority. From FY2018-FY2023, IFCU payroll expenditures are projected to be ~\$600 million annually. Non-payroll operating expenditures are projected to remain at ~\$1.1 billion annually.

**Cost share of disaster relief funding:** Federal funds for public assistance typically require a local match from the entity receiving them (anywhere from 10-25% of funds). In the case of

<sup>25</sup> Projected based on a smaller observed spike in actual enrollment from pre- to post-Maria relative to Medicaid spike

<sup>26</sup> Projections for pension expenses are provided by Pension Trustee Advisors (PTA) calculations

Puerto Rico, the New Fiscal Plan projects that the Commonwealth will need to cover an estimated 10% of Federal public assistance funds, amounting to \$1.1 billion from FY2018-FY2023. However, a certain portion of this is expected to be covered by CDBG funds (e.g., 25% of the initial \$1.5 billion allocated from HUD in February, which would amount to ~\$188 million from FY2018-FY2023, or \$375 million over the 10 years of federal fund receipts). Thus, total cost share incurred by the Commonwealth is expected to be \$870 million from FY2018-FY2023.

**PROMESA related costs:** Commonwealth PROMESA related expenses are projected to be \$1.5 billion for FY2018 to FY2023, comprised of professional fees (approximately \$1.1 billion over six years) and funding for the Oversight Board (\$430 million over six years). The estimate for professional fees was developed, in conjunction with the Government, by analyzing FY2018 run-rate billings based on available information and soliciting input from certain professionals. Fees were benchmarked versus comparable restructuring situations that yield an average professional-fee-to-funded-debt ratio of 1.89% relative to 1.65% projected for the Commonwealth (**Exhibit 18**).

**EXHIBIT 18: PROJECTED PROFESSIONAL FEES RELATIVE TO OTHER MAJOR RESTRUCTURINGS**

	Date filed	Outstanding debt, USD	Total fees and expenses, USD	Fees to funded debt, %
City of Detroit, Michigan	Jul. 2013	\$20,000,000,000	\$177,910,000	0.89%
Residential Capital, LLC	May-12	\$15,000,000,000	\$409,321,308	2.73%
Sabine Oil & Gas Corp.	Jul. 2015	\$2,800,000,000	\$78,553,223	2.81%
Caesars Entertainment Operating Company	Jan. 2015	\$18,000,000,000	\$258,278,005	1.43%
Lehman Brothers Holdings Inc.	Sep. 2008	\$613,000,000,000	\$956,957,469	0.16%
Lyondell Chemical Company	Jan. 2009	\$22,000,000,000	\$205,932,292	0.94%
American Airlines	Nov. 2011	\$11,000,000,000	\$391,637,858	3.56%
Washington Mutual, Inc.	Sep. 2008	\$8,000,000,000	\$271,085,213	3.39%
Edison Mission Energy	Dec. 2012	\$5,000,000,000	\$96,244,628	1.92%
Energy Future Holdings Corp.	Apr. 2014	\$40,000,000,000	\$450,110,233	1.13%
Puerto Rico	2017	\$64,000,000,000	\$1,057,990,545	1.65%

**Summary Statistics**

Avg.	1.89%
Max	3.56%
Min	0.16%
Med	1.68%



Puerto Rico involves added complexity as the largest public sector restructuring in the history of the United States

**Emergency reserve:** The Commonwealth must establish an emergency reserve of \$1.3 billion, or ~2.0% of FY2018 GNP, by reserving \$130 million per year for 10 years. The methodology supporting this reserve is informed by guidance provided to The Bahamas, another Caribbean island, by the International Monetary Fund in defining an adequate emergency reserve (2-4% of GNP, accumulated at ½% per year).<sup>27</sup> Restrictions on the use of this fund must ensure that it is a true emergency reserve.

<sup>27</sup> IMF Bahamas Article IV report published March 22, 2018